

**Notice of Allowability**

Application No.

10/717,544

Applicant(s)

TAKAYOSHI ET AL.

Examiner

Art Unit

Fred Tzeng

2651

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 12/9/2005 & 1/13/2006.
2. ☒ The allowed claim(s) is/are 1, 3, 4, 9, 11, 12 which are now renumbered as 1-6.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |   |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)           |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                   |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance  |
|   | 9. <input type="checkbox"/> Other _____   |

1. This office action is in response to the amendment filed on December 09, 2005.
2. The objection to the drawing figure 4 is withdrawn due to the corrected figure 4 filed on December 09, 2005.

### **EXAMINER'S AMENDMENT**

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.
4. Authorization for this examiner's amendment was given in a telephone interview with attorney, Mr. Ronald P. Kananen, on January 13, 2006.
5. The application has been amended as follows:

Claim 1 (Currently amended) An amplifier apparatus, which is switched from a non-readout state to a readout state based on a control signal, for reading out a signal containing a servo signal by signal readout means, amplifying the signal by an amplifier, and outputting said amplifying signal, wherein

said amplifier apparatus comprises filtering means for allowing a high frequency part of a signal to pass through, thereby filtering said signal, said filtering means having a first cutoff frequency during a first prescribed time period after said readout state is initiated, a second cutoff frequency that is lower than said first cutoff frequency during a second prescribed time period after said first prescribed time period has passed, and a

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third cutoff frequency that is lower than said second cutoff frequency after said second prescribed time period has passed [.] wherein said second prescribed time period is shorter than a readout time for said servo signal contained in said signal.

Claim 2 (Canceled).

Claim 3 (Currently amended) The amplifier apparatus of Claim 1 ~~or Claim 2~~, wherein said filtering means for allowing said high frequency part of said signal to pass through is a high pass filter, and said high pass filter is placed between a first amplifier and a second amplifier, which are for amplifying said signal.

Claim 4 (Currently amended) An amplifier apparatus, which is switched from a non-readout state to a readout state based on a control signal, for reading out a signal containing a servo signal by signal readout means, amplifying said signal by an amplifier, and outputting said amplified signal, wherein said an amplifier apparatus comprises:

variable filtering means with a plurality of cutoff frequencies,

a first amplifier,

a second amplifier; and

switching means for controlling said amplified signal output, and said switching means being placed on an output side of said second amplifier,

wherein said output signal from said first amplifier passes through said variable filtering means and is amplified by said second amplifier,

wherein said variable filtering means has a first cutoff frequency, a second cutoff frequency, and a third cutoff frequency,

wherein after said non-readout state is switched to said readout state, said variable filtering means has said first cutoff frequency during a first prescribed time period,

wherein said switching means is turned on, and said variable filtering means has said second cutoff frequency during a second prescribed time period after said first prescribed time period has passed,

wherein said variable filtering means has a third cutoff frequency after said second prescribed time period has passed, and

wherein said first cutoff frequency is higher than said second cutoff frequency and said second cutoff frequency is higher than said third cutoff frequency[.],

wherein said second prescribed time period is shorter than a readout time for said servo signal contained in said signal.

Claims 5-8 are (canceled).

Claim 9 (Currently amended) A magnetic recording and reproducing apparatus comprising an amplifying apparatus, which is switched from a recording state to a readout state based on a control signal, for reading out a signal containing a servo signal by signal readout means, amplifying said signal by an amplifier, and outputting said amplified signal, wherein:

said amplifier apparatus comprises filtering means for allowing a high frequency part of a signal to pass through, thereby filtering said signal, said filtering means having a first cutoff frequency during a prescribed time period after said readout state is initiated, a second cutoff frequency that is lower than said first cutoff frequency during a

second prescribed time period after said first prescribed time has passed, and a third cutoff frequency that is lower than said second cutoff frequency after said second prescribed time period has passed [.] wherein said second prescribed time period is shorter than a readout time for said servo signal, which is contained in said signal.

Claim 10 (Canceled).

Claim 11 (Currently amended) The magnetic recording and reproducing apparatus comprising the amplifier apparatus of Claim 9 ~~or Claim 10~~, wherein said filtering means for allowing a high frequency part of a signal to pass through is a high pass filter, and said high pass filter is placed between a first amplifier and a second amplifier, which amplify said signal.

Claim 12 (Currently amended) A magnetic recording and reproducing apparatus comprising an amplifier apparatus, which is switched from a non-readout state to a readout state based on a control signal, for reading out a signal containing a servo signal by signal readout means, amplifying said signal by an amplifier, and outputting said amplified signal, wherein

said magnetic recording and reproducing apparatus comprising an amplifier apparatus comprises variable filtering means with a plurality of cutoff frequencies, a first amplifier, and a second amplifier; wherein

an output signal from said first amplifier passes through said variable filtering means and is amplified by said second amplifier,

wherein switching means for controlling an amplified signal output is placed on an output side of said second amplifier,

wherein said variable filtering means has a first cutoff frequency, a second cutoff frequency, and a third cutoff frequency,

wherein after said non-readout state is switched to said readout state, said variable filtering means has said first cutoff frequency during a first prescribed time period,

wherein after said first prescribed time period has passed, said switching means is turned on, and said variable filtering means has said second cutoff frequency during a second prescribed time period,

wherein said variable filtering means has a third cutoff frequency after said second prescribed time period; and

wherein said first cutoff frequency is higher than said second cutoff frequency, and said second cutoff frequency is higher than said third cutoff frequency[.],

wherein said second prescribed time period is shorter than a readout time for said servo signal, which is contained in said signal.

Claims 13-16 are (Canceled).

### ***Reason for Allowance***

6. The following is an examiner's statement of reasons for allowance:

Claims 1, 3, 4, 9, 11 and 12 which are now renumbered as 1-6 are allowable over the prior art of record because none of the prior art of record teaches or fairly suggests an amplifier apparatus in a disk drive for amplifying a servo signal read out by a signal readout means based on a control signal for switching from a non-readout state

to a readout state, wherein the amplifying apparatus comprises filtering means for allowing high frequency part of a signal to pass through based on three cutoff frequencies at three prescribed time period respectively, and more specifically the second prescribed time period is shorter than a readout time for the servo signal.

7. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

8. Any inquiry concerning this communication from the examiner should be directed to Fred Tzeng whose telephone number is 571-272-7565. The examiner can normally be reached on weekdays from 9:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on 571-272-7843. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and 571-273-7565 for After Final communications.

9. Informal regarding the status of an application may be obtained from the Patent Application Information Retrieval (**PAIR**) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you

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have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Fred F. Tzeng



January 16, 2006



**DAVID HUDSPETH**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**